

Applicants : Roy W. Kuennen et al
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REMARKS

Applicants respectfully request reconsideration of the application identified above. Claims 32, 34-42 and 71-73 are pending in the application; claims 32, 34-36 and 71 are amended; and claims 72 and 73 are new. The rejections as conceivably applied to the pending claims are respectfully traversed. A Request for Continued Examination is filed concurrently with this Response.

I. Interview with the Examiner

Applicants thank Examiner Cecil for the courtesies extended to the Applicants' attorney in the telephonic interview of February 23, 2007. During the interview, claims 32 and 71 were discussed primarily in view of WO96/33135 to Haegermarck and U.S. Patent 4,694,179 to Lew. Examiner Cecil suggested that amending the claims to recite constant radii of curvature portions, in addition to the diminishing radii of curvature, would be favorable, but that a new search would have to be conducted. The Applicants have amended the claims along the lines discussed in the interview.

II. Prior Art Rejections

As previously presented, claims 32, 34, 36-37, 40 and 71 were rejected under 35 U.S.C. §103(a) as being unpatentable over Haegermarck in view of Lew; claim 35 was rejected under 35 U.S.C. §103(a) as being unpatentable over Haegermarck in view of U.S. Patent 6,022,511 to Matschke; and claims 32, 34, 36-39, 40-42 and 71 were rejected under 35 U.S.C. §103(a) as being unpatentable over Haegermarck in view of U.S. Patent 6,245,299 to Kool.

Applicants address the primary reference, Haegermarck, and the differences between the pending claims and this reference here. Haegermarck shows in Figs. 2 and 3 a UV reflector 12, 12'. In Fig. 2, the reflector 12 is in the form of an ellipse having foci 18 and 22. The elliptical portion of the reflector 12 converts to planar portions 23, 25 and 27, 29 on opposite ends of the reflector, and those planar portions intersect adjacent the bulb 16, forming a non-radiused indentation 24. In Fig. 3, the UV reflector 12' includes an elliptical shape that transitions to an indentation 24. Pg. 6, Lns. 4-25. As the Examiner appreciated during the interview, being in the shape of an ellipse, the reflector 12 includes radii about the focal points 18', 22' that vary constantly from point to point along the elliptical shape of the reflector 12'.

As discussed, however, Haegermarck fails to disclose, teach or suggest diminishing radii of curvature that transition to constant *radii* of curvature *portions* as recited in amended independent claims 32 and 71. In contrast, the Haegermarck reflector merely includes an elliptical surface; and that surface includes no constant radii of curvature portions due to the elliptical nature of the reflector. Further, with respect to amended independent claim 71, Haegermarck fails to disclose, teach or suggest an inflection point where the transition of diminishing radii of curvature to constant radii of curvature occurs.

In view of the amended independent claims 32 and 71, Applicants respectfully submit that the rejections based on Haegermarck and any of the other references are now improper and should be withdrawn. Applicants further submit that none of Lew, Matschke or Kool make up for the deficiencies of Haegermarck noted above in connection with the

independent claims 32 and 71, and therefore the rejections based on these references should be withdrawn as well.

III. Dependent Claims

Claims 34-42 depend from amended independent claim 32; and claims 72 and 73 depend from amended independent claim 71, and are therefore allowable for at least the reasons noted above in connection with those respective amended independent claims.

In addition, Applicants have amended dependent claim 34 to recite a second terminal curvature peak wherein at least one conduit is positioned midway between the terminal curvature peaks of the reflector assembly. Dependent claim 36 has been amended to recite a reflector having a planar portion joined with the terminal curvature peak, the planar portion extending away from the bulb assembly. Dependent claim 72 recites a conduit positioned midway between first and second sets of diminishing radii of curvature so that the conduit receives radiation from the first and second sets of diminishing radii of curvature. Finally, new dependent claim 73 recites a planar portion joined with a terminal curvature peak that projects outwardly away from the bulb.

Further, with respect to amended dependent claim 35, Applicants respectfully submit that Haegermarck fails to disclose, teach or suggest omega-shaped reflectors as proposed by the examiner. The examiner relies the Haegermarck ellipse interrupted by parts 23 and 25 in Fig. 2. Applicants respectfully submit that this structure (whatever it is) is not an “ Ω ”—portions 23 and 25 are clearly planar, and not curved like the sides of an omega. Applicants further submit that there is no motivation to combine Matschke and Haegermarck because to do so

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would be superfluous, as the Haegermarck reflector of Fig. 2 is fully formed and operates as intended without being segmented into separate pieces.

Accordingly, Applicants respectfully submit that amended dependent claim 35 is further patentable over the hypothetical (but improper) combination of Haegermarck and Matschke.

CONCLUSION

In view of the above amendments and Remarks, Applicants respectfully submit that the present application is in condition for allowance. A notice to that effect is earnestly and respectfully requested. If the examiner believes that it would be helpful to resolve any outstanding issues, he is invited to contact the undersigned.

Respectfully submitted,

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